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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,457	07/23/2003	Venkata A. Bhagavatula	SP02-165	2551
22928	7590	07/13/2005	EXAMINER	
CORNING INCORPORATED			KALIVODA, CHRISTOPHER M	
SP-TI-3-1				
CORNING, NY 14831			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,457

Applicant(s)

BHAGAVATULA ET AL.

Examiner

Christopher M. Kalivoda

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-39 is/are rejected.
- 7) ☒ Claim(s) 33-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/23/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 20-39 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claims 33-39 are objected to because of the following informalities:

There are two claims numbered 33 (bottom of page 4 and top of page 5). Accordingly each claim/claim dependency after claim 33 should be renumbered. The claims will be addressed as claimed only claim 33 will be addressed as claim 33 (on page 4) and claim 33 (on page 5) to distinguish.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenner et al., U. S. Patent 6,385,382.

Regarding independent claims 20 and 28, Jenner et al. teach a method for passively aligning and an apparatus for aligning optical elements comprising:

Aligning and securing (col 3, lines 28-30 and col 4, lines 5-7 since the fiber is bonded to the base) one or more optical elements (Fig 1, ref sign 104) to bases (Fig 1); and securing and passively aligning (col 3, lines 39-42 and Fig 1, ref sign 116) one or more of the bases to a substrate (Fig 1, ref sign 10); each base has a first receiving structure (Fig 1, ref sign 112) configured to secure an optical element to the base as described above; and the substrate has one or more second receiving structures at predetermined locations configured to secure and passively align one or more of the bases to the substrate (col 3, lines 39-42).

In this reference, the base is interpreted to be the structure the fiber is mounted/bonded into and the substrate is the optical bench the base is mounted to. In addition, passive alignment occurs because of the alignment features (Fig 1, ref sign 116) in the base mating with oppositely gendered alignment features in the bench as referenced above. As seen best in Figure 5, the shape of the alignment features lends itself to securing the base to the substrate.

Regarding independent claim 38, Jenner et al. teach a method of passively aligning and an optical device comprising:

An optical element (Fig 1, ref sign 104);

A base (Fig 1) having a first receiving structure (Fig 1, ref sign 112) configured to secure the optical element to the base (col 3, lines 28-30, col 4, lines 5-7) and a substrate (Fig 1, ref sign 10) having a second receiving structure at predetermined locations configured to secure and passively align the base to the substrate (col 3, lines 39-42).

However, the reference is silent with respect to plural optical elements, plural bases and a plurality of second receiving structures.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a plurality of optical elements, bases and a plurality of second receiving structures since it has been upheld that mere duplication of the essential working parts in a device involves only routine skill in the art (St Regis Paper v Bemis Co., 193 USPQ 8.).

The motivation for including a plurality of optical elements, bases and second receiving structure is to provide for system redundancy or to simultaneously align more than one set of components.

Regarding claim 21, each base is passively aligned and secured to the substrate by a receiving structure as referenced above.

Regarding claims 22 and 31, the optical element is secured to the respective base by flexible gripping elements having a pair of spaced sidewalls defining a channel for receiving the optical element (Fig 1, ref sign 112).

Regarding claim 23 and 32, the receiving structure includes flexible gripping elements having a pair of spaced sidewalls defining a channel for receiving the base (Fig 5 - since the receiving structure fits into the alignment elements 116 of the base). The channel would be the space between the opposite-gendered receiving structures.

Regarding claims 24-25, 27, 36 and 37, each base is sized and shaped to cooperate with the receiving gripping element to secure the base to the substrate (col 3,

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lines 39-41). The bases are sized and shaped to be interchangeable and the receiving structure and bases have predetermined and standardized sizes since they are designed to fit together as described above.

Regarding claims 26 and 35, the receiving structure includes a depression or recess in the substrate that receives at least a portion of the base in position on the substrate since a channel is formed as described above.

Regarding claim 29, the first receiving structure secures the optical element to the base at a predetermined spatial and angular position since the fiber is bonded to the base as described above.

Regarding claim 30, the first receiving structure aligns the optical element to the base (Fig 1, ref sign 112 since the fiber fits in the groove).

Regarding claim 33 (page 4), the sidewalls include upper and lower portions and spacing between the upper portions is less than the spacing between the lower portions (col 4, lines 54-65 since the base is squeezed).

Regarding claims 33 (page 5) and 34, the base includes an alignment feature (Fig 1, ref sign 116), which cooperates with an alignment feature on the second receiving structure thereby securing the base to the substrate. The alignment feature includes a groove (Fig 5, slots at bottom of base).

Regarding claim 39, the optical element can be selected from the group consisting of optical fibers, lensed fibers, prisms, filters, thin film filters, switching elements, lenses, graded index lenses, gratings, mirrors, MEMs mirrors,

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electroholographic switches, VCEL arrays, variable optical attenuation elements, tunable filters and LCD switches (Fig 1, ref sign 104 where 104 is a fiber).

Conclusion

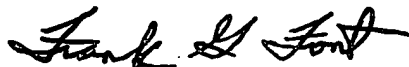
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Kalivoda whose telephone number is (571) 272-2476. The examiner can normally be reached on Monday - Friday (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cmk
07/03/05



Frank G. Font
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